Amendments to the Claims

1) – 3) (CANCELLED)

4) (PREVIOUSLY AMENDED) A composition of matter useful as a phosphor in light emitting

diodes, which comprises a material described by the formula:

$$ZnS_xSe_y{:}Cu$$

wherein $0 \leq x \leq 0.5$ and $0 \leq y \leq 0.5$, and subject to the proviso that the sum of x and y is equal to

any number in the range of between about 0.75 and about 1, and wherein Cu is present in any

amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight

of said composition.

5) (CURRENTLY AMENDED) A composition of matter which comprises a material described

by the formula:

$$ZnS_xSe_y{:}Cu$$

in which x and y are each independently any value between 0 and 1, subject to the proviso that

the sum of x and y is equal to any number in the range of between about 0.75 and about 1.25, and

subject to the proviso that x is equal to at least 0.2, and wherein Cu is present in any amount

between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said

composition, and ~~according to claim 1~~ wherein $0.2 \leq x \leq 0.5$ and $0.5 \leq y \leq 1.0$.
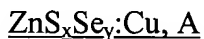

6) (CANCELLED)

7) (CANCELLED)

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8) – 10) (CANCELLED)

11) (CURRENTLY AMENDED) A composition ~~according to claim 8~~ of matter useful as a phosphor in light emitting diodes, which comprises a material described by the formula:

$$ZnS_xSe_y:Cu, A$$

in which x and y are each independently any value between 0 and about 1, subject to the proviso that the sum of x and y is equal to any number in the range of between about 0.75 and about 1.25; and subject to the proviso that x is not zero, wherein A comprises at least one additional element selected from the group consisting of: Ag, Ce, Tb, Cl, I, Mg, and Mn, including mixtures thereof, and wherein Cu is present in any amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said composition, and wherein $0.001 \leq x \leq 0.5$ and $0 \leq y \leq 0.5$.

12) (CURRENTLY AMENDED) A composition ~~according to claim 8~~ of matter useful as a phosphor in light emitting diodes, which comprises a material described by the formula:

$$ZnS_xSe_y:Cu, A$$

in which x and y are each independently any value between 0 and about 1, subject to the proviso that the sum of x and y is equal to any number in the range of between about 0.75 and about 1.25; and subject to the proviso that x is not zero, wherein A comprises at least one additional element selected from the group consisting of: Ag, Ce, Tb, Cl, I, Mg, and Mn, including mixtures thereof, and wherein Cu is present in any amount between about 0.0001 % and about 5 % in mole percent based on the total molar weight of said composition, and wherein $0.001 \leq x \leq 0.5$ and $0.5 \leq y \leq 1.0$.

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13) – 17) (CANCELLED)

18) (ORIGINAL) A composition according to claim 11 wherein the total amount of A present is any amount between about 0.0001% and about 5 % in mole percent based on the total molar weight of said composition.

19) (ORIGINAL) A composition according to claim 12 wherein the total amount of A present is any amount between about 0.0001% and about 5 % in mole percent based on the total molar weight of said composition.

20) – 34) (CANCELLED)